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09/830,920	07/31/2001	Satoshi Kondo	60188-520	5216

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EXAMINER	
FLETCHER, JAMES A	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/830,920	KONDO, SATOSHI	
	Examiner	Art Unit	
	James A. Fletcher	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12 November 2004 have been fully considered but they are not persuasive.

In re pages 3 and 9, Applicant's Representative states: "Magee fails to disclose or suggest a stream converting/recording method comprising a step of separating a first transport stream into a first TS packet string formed from TS packets that have a prescribed packet identifier and a second TS packet string formed from TS packets that do not have the prescribed packet identifier, as recited by claims 1 and 4 [5 and 10]."

The examiner respectfully disagrees. The broad language of claims 1 and 4 do not indicate any parameters of the prescribed packet identifier, so it can be read as being any identifying data whatsoever, including time stamps, chapter numbers, or camera angles. If the prescribed packet identifier happens to be a particular time stamp, any packet having a different time stamp would not have the prescribed packet identifier. Magee, by performing operations based on the PID of the transport packet, differentiates packets with particular PIDs from those with other PIDs.

In re pages 4 and 9, Applicant's Representative states: "Magee does not disclose or suggest converting a bit rate of the first TS packet string so as to produce the third TS packet, as recited by claims 1 and 4 [8 and 9]."

The examiner respectfully disagrees. Magee discloses modifying of the inputted digital video by changing the sample rate conversion. As is understood by those of skill in the art, the bit rate of a transport stream is dependent on many parameters, including

the sample rate of the original signal. While this could be offset at the original D/A conversion by increasing the word size, trading temporal resolution for instantaneous value resolution, this is not the case with a pre-existing bit stream. Clearly, changing the sample rate of the stream cannot help but change the bit rate as well.

In re page 5, Applicant's Representative states: "Magee fails to disclose or suggest a stream recording method comprising a step of determining, with reference to the reference time, time of receipt of each TS packet forming the second transport stream, and recording the second transport stream together with the determined time of receipt onto a recording medium, as recited by claim 4."

The examiner finds this argument persuasive against the 102 rejection of claim 4, and is submitting a revised non-final rejection for that claim, as well as dependent claim 4/6.

Further in re page 7, Applicant's Representative states: "Magee fails to disclose or suggest...a stream converting/recording apparatus/method comprising a packet separation section for separating a first transport stream into a first TS packet string formed from TS packets that have a prescribed packet identifier and a second TS packet string formed from TS packets that do not have the prescribed packet identifier, and a bit-rate converting section for converting a bit rate of the first TS packet string so as to produce a third TS packet string, as recited by claims 8 and 9."

The examiner again respectfully disagrees for the reasons discussed above regarding claims 1 and 4.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Magee et al (5,835,493).

Regarding claim 1, Magee et al disclose a stream converting method comprising:

- separating a first transport stream (TS) into a first TS packet string formed from TS packets that have a prescribed packet identifier (Col 9, lines 22-26 "Depending on the PID of each transport packet, the DLM 110 extracts and transfers the transport packet onto the DM bus for assembly into the outputted remultiplexed transport stream by the scheduler 141") and a second TS packet string formed from TS packets that do not have the prescribed packet identifier (Col 9, lines 26-28 "Furthermore, depending on the PID of each transport packet, the DLM 110 extracts and captures the transport packet for transfer on the C bus");
- converting a bit rate of the first TS packet string so as to produce a third TS packet string (Col 3, lines 39-41 "The video preprocessor module 17 performs different kinds of analysis and modification of the inputted digital video such as sample rate conversion"); and

- multiplexing the produced third TS packet string and the second TS packet string so as to produce a second transport stream (Col 8, lines 1-4 "a flexible remultiplexer architecture is provided for remultiplexing one or more higher layered transport streams to selectively include one or more programs, or elementary streams of programs, carried therein").

Regarding claim 2, Magee et al disclose a stream converting method characterized in that the prescribed packet identifier is a packet identifier of at last one of video data and audio data (Col 2, lines 20-21 "Each transport packet can carry PES packet data, e.g., private data, video data, or audio data").

Regarding claim 3, Magee et al disclose a stream converting method comprising:

- extracting reference time information from the first transport stream so as to produce reference time from the reference time information (Col 12, lines 33-35 "each transport stream carries PCR's for recovering a program clock of each program carried therein");
- determining, with reference to the reference time, time of receipt of a TS packet including a head byte of a PES packet in the first TS packet string as first time of receipt (Col 12, lines 42-43 "the DLM 110 keeps track of the time each transport packet carrying a PCF is received");
- determining, with reference to the reference time, time of receipt of a head byte of each TS packet forming the second TS packet string as second time

of receipt (Col 12, lines 44-45 "The DLM 110 also keeps track of when the PCR bearing transport packet is transferred on the DM bus"); and

- selecting from the second TS packet string a TS packet corresponding to the second time of receipt for output as the second transport stream, when the delayed reference time matches the second time of receipt (Col 12, lines 44-49 "Prior to transfer, the DLM 110 determines the 'dwell' time or time in which the PCR bearing transport packet has been enqueued in the DLM 110. This dwell time is added to the PCR of the transport packet prior to transfer on the DM bus").

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Magee et al.

Regarding claim 4, Magee et al disclose a stream recording method comprising:

- separating a first transport stream into a first TS packet string formed from TS packets that have a prescribed packet identifier (Col 9, lines 22-26 "Depending on the PID of each transport packet, the DLM 110 extracts and transfers the transport packet onto the DM bus for assembly into the outputted remultiplexed transport stream by the scheduler 141") and a second

TS packet string formed from TS packets that do not have the prescribed packet identifier (Col 9, lines 26-28 "Furthermore, depending on the PID of each transport packet, the DLM 110 extracts and captures the transport packet for transfer on the C bus");

- converting a bit rate of the first TS packet string so as to produce a third TS packet string (Col 3, lines 39-41 "The video preprocessor module 17 performs different kinds of analysis and modification of the inputted digital video such as sample rate conversion");
- multiplexing the produced third TS packet string and the second TS packet string so as to produce a second transport stream (Col 8, lines 1-4 "a flexible remultiplexer architecture is provided for remultiplexing one or more higher layered transport streams to selectively include one or more programs, or elementary streams of programs, carried therein");
- extracting reference time information from the first transport stream (Col 12, lines 33-35 "each transport stream carries PCR's for recovering a program clock of each program carried therein"), and delaying reference time represented by the reference time information by a prescribed time so as to produce delayed reference time (Col 12, lines 44-48 "Prior to transfer, the DLM 110 determines the 'dwell' time or time in which the PCR bearing transport packet has been enqueued in the DLM 110") and
- determining, with reference to the delayed reference time, time of receipt of each TS packet forming the second transport stream (Col 12, lines 48-49

"This dwell time is added to the PCR of the transport packet prior to transfer on the DM bus").

- Magee et al suggest recording the output (Col 5, lines 29-30 "The output formatter converts the transport packet data into a format suitable for transfer to a downstream device"), but do not specifically disclose that device as a recording medium.

The examiner takes official notice that devices for recording packetized video and audio data are well-known, widely used, and commercially available to the general public, and provide a means for storing audio and video programs for viewing at times convenient to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Magee et al to include recording of the remultiplexed bit stream.

Regarding claim 5, Magee et al disclose a stream recording method comprising:

- selecting TS packets other than TS packets having a prescribed packet identifier from a first transport stream so as to output the selected TS packets as a second transport stream (Col 9, lines 26-28 "Furthermore, depending on the PID of each transport packet, the DLM 110 extracts and captures the transport packet for transfer on the C bus");
- extracting reference time information from the first transport stream so as to produce reference time from the reference time information (Col 12, lines 33-

35 "each transport stream carries PCR's for recovering a program clock of each program carried therein"); and

- determining, with reference to the reference time, time of receipt of each TS packet forming the second transport stream (Col 12, lines 42-43 "the DLM 110 keeps track of the time each transport packet carrying a PCF is received"),
- Magee et al suggest recording the output (Col 5, lines 29-30 "The output formatter converts the transport packet data into a format suitable for transfer to a downstream device"), but do not specifically disclose that device as a recording medium.

The examiner takes official notice that devices for recording packetized video and audio data are well-known, widely used, and commercially available to the general public, and provide a means for storing audio and video programs for viewing at times convenient to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Magee et al to include recording of the remultiplexed bit stream.

Regarding claim 6, Magee et al disclose a stream recording method characterized in that the prescribed packet identifier is a packet identifier of at least one of video data and audio data (Col 2, lines 20-21 "Each transport packet can carry PES packet data, e.g., private data, video data, or audio data").

Regarding claim 7, Magee et al do not disclose a stream recording method characterized in that the recording medium is an optical disk.

The examiner takes official notice that optical disks are well-known, widely used, and commercially available to the general public, and provide a means for storing audio and video programs for viewing at times convenient to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Magee et al to include recording of the remultiplexed bit stream on an optical disk.

Regarding claims 8 and 9, Magee et al disclose a stream converting apparatus comprising:

- a packet separating section for separating a first transport steam into a first TS packet string formed from TS packets that have a prescribed packet identifier (Col 9, lines 22-26 "Depending on the PID of each transport packet, the DLM 110 extracts and transfers the transport packet onto the DM bus for assembly into the outputted remultiplexed transport stream by the scheduler 141") and a second TS packet string formed from TS packets that do not have the prescribed packet identifier (Col 9, lines 26-28 "Furthermore, depending on the PID of each transport packet, the DLM 110 extracts and captures the transport packet for transfer on the C bus");
- a bit-rate converting section for converting a bit rate of the first TS packet string so as to produce a third TS packet string (Col 3, lines 39-41 "The video

preprocessor module 17 performs different kinds of analysis and modification of the inputted digital video such as sample rate conversion");

- a packet multiplexing section for multiplexing the third TS packet string output from the bit-rate converting section and the second TS packet string output from the packet separating section so as to produce a second transport stream (Col 8, lines 1-4 "a flexible remultiplexer architecture is provided for remultiplexing one or more higher layered transport streams to selectively include one or more programs, or elementary streams of programs, carried therein");
- a means for extracting reference time information from the first transport stream (Col 12, lines 33-35 "each transport stream carries PCR's for recovering a program clock of each program carried therein"), and delaying reference time represented by the reference time information by a prescribed time so as to produce delayed reference time (Col 12, lines 44-48 "Prior to transfer, the DLM 110 determines the 'dwell' time or time in which the PCR bearing transport packet has been enqueued in the DLM 110"); and
- a recording control section for determining, with reference to the delayed reference time, time of receipt of each TS packet forming the second transport stream (Col 12, lines 48-49 "This dwell time is added to the PCR of the transport packet prior to transfer on the DM bus")
- Magee et al suggest recording the output (Col 5, lines 29-30 "The output formatter converts the transport packet data into a format suitable for transfer

to a downstream device"), but do not specifically disclose that device as a recording medium.

The examiner takes official notice that devices for recording packetized video and audio data are well-known, widely used, and commercially available to the general public, and provide a means for storing audio and video programs for viewing at times convenient to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Magee et al to include recording of the remultiplexed bit stream.

Regarding claim 10, Magee et al disclose a stream recording apparatus comprising:

- a packet selecting section for selecting TS packets other than TS packets having a prescribed packet identifier from a first transport stream so as to output the selected TS packets as a second transport stream (Col 9, lines 26-28 "Furthermore, depending on the PID of each transport packet, the DLM 110 extracts and captures the transport packet for transfer on the C bus");
- a means for extracting reference time information from the first transport stream so as to produce reference time from the reference time information (Col 12, lines 33-35 "each transport stream carries PCR's for recovering a program clock of each program carried therein"); and
- a recording control section for determining, with reference to the reference time, time of receipt of each TS packet forming the second transport stream

(Col 12, lines 42-43 "the DLM 110 keeps track of the time each transport packet carrying a PCF is received")

- Magee et al suggest recording the output (Col 5, lines 29-30 "The output formatter converts the transport packet data into a format suitable for transfer to a downstream device"), but do not specifically disclose that device as a recording medium.

The examiner takes official notice that devices for recording packetized video and audio data are well-known, widely used, and commercially available to the general public, and provide a means for storing audio and video programs for viewing at times convenient to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Magee et al to include recording of the remultiplexed bit stream.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (571) 272-7377. The examiner can normally be reached on 7:45-5:45 M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAF
24 May 2005

James J. Groody
Supervisory Patent Examiner
Art Unit ~~262~~ 2616